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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,550	10/06/2008	Jacqueline Rachel Day	0074-543647	4736

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DANN, DORFMAN, HERRELL & SKILLMAN
1601 MARKET STREET
SUITE 2400
PHILADELPHIA, PA 19103-2307

EXAMINER	
NGUYEN, TRINH T	
ART UNIT	PAPER NUMBER
3644	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,550	DAY ET AL.	
	Examiner	Art Unit	
	Trinh T. Nguyen	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amend. dated 10/28/10*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-52* is/are pending in the application.

4a) Of the above claim(s) *40-52* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's remarks with respect to claims 16-26 have been acknowledged but are moot in view of the cancellation of the claims 16-26.

2. With respect to claims 40 and 48 (withdrawn-currently amended), it is unclear if the phrase "an apparatus" is referred to "a tank" or "means for delivering foam"/"means for recirculating fluid" as claimed in claims 27 and 35 respectively? Furthermore, the method claims 40-52 are directed to an invention that is independent or distinct from the apparatus claims 27-39 because the apparatus claims 27-39 as claimed can be used to practice another and materially different method such as one that does not require loading a plurality of aquatic animals into the interior of the tank. In addition, since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 40-52 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 27,28,30,31,33,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robohm (US 6557492) in view of Smolski (US 3452966).

For claim 27, Robohm teaches an apparatus for storing aquatic animals, comprising a tank (205) for receipt of a plurality of aquatic animals, said tank having an upper portion and a lower portion; and means for delivering foam (300,305,310; in this case, the oxygen bubbles are considered as equivalent to foam) to the interior of the tank.

However, Robohm lacks to mention that the means for delivering foam to the interior of the tank at the upper portion.

Smolski teaches that it is old and well known in the art of animal husbandry to use a means (14,13) for delivering bubble/foam within a body of liquid at the upper portion (see Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of Robohm so as to include the use of a means for delivering bubble/foam within a body of liquid at the upper portion, in a similar manner as taught in Smolski, so as to promote a better fluid recirculation arrangement.

Furthermore, it should be noted that a recitation (i.e., “at least a majority of the aquatic animals when stored in the tank are submerged in foam”) of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Presently, the Robohm reference provides the claimed structure (i.e., a tank having a means for delivering foam to the interior of the tank), and is therefore,

capable of functioning (i.e., storing aquatic animals within the tank wherein the aquatic animals are submerged in the foam) as claimed. Moreover, it is noted that the

For claim 28, Robohm as modified by Smolski (emphasis on Smolski) further teach the means for delivering foam comprises: means (13,14) for circulating a liquid in said tank from the lower portion of the tank to the upper portion of the tank; and means for injecting a gas/air into said circulating means such that bubble/foam is generated in said circulating means (see lines 54-60 of col. 2).

For claim 30, Robohm as modified by Smolski disclose most of the claimed invention except for mentioning the gas/air injecting means comprises means for introducing a property-enhancing substance into the foam. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Robohm as modified by Smolski so as to have included the gas/air injecting means comprises means for introducing a property-enhancing substance into the foam, since the Examiner takes Official Notice that such concept is old and well known technique used throughout the art of transporting live aquatic animals so as to prolong the life of aquatic animals store therein.

For claim 31, Robohm as modified by Smolski disclose most of the claimed invention except for mentioning the gas/air injecting means comprises means for pulsing the gas/air as the gas/air is injected into the circulating means whereby the foam can be applied over the aquatic animals in pulses. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Robohm as modified by Smolski so as to have included the

gas/air injecting means comprises means for pulsing the gas/air as the gas/air is injected into the circulating means whereby the foam can be applied over the aquatic animals in pulses, since the Examiner takes Official Notice that such concept is old and well known technique used throughout the art of transporting live aquatic animals so as to efficiently supply amount of gas/air into the tank and thus prolong the life of aquatic animals store therein.

For claims 33 and 34, Robohm as modified by Smolski further disclose the means for delivering foam (305,300,310) comprises a source of foam (the source of foam in this case is oxygen tank) operatively connected to the interior of said tank and wherein the source of foam comprises a source of synthetic foam.

5. Claims 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references (Robohm in view of Smolski) as applied to claim 28 above, and further in view of Holman (US 1616125).

For claim 29, as described above, the references (Robohm in view of Smolski) as applied to claim 28 above teach most of the claimed invention except to mention that the gas/air injecting means comprises a source of pressurized gas/air.

Holman teaches that it is old and well known in the art of transporting live aquatic animals to use a gas/air injecting means comprises a source of pressurized gas/air. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of the references (Robohm in view of Smolski) as applied to claim 28 above so as to include the use of a gas/air injecting means comprises a source of pressurized gas/air, in a similar manner as taught in

Holman, so as to constantly supply gas/air therein and thus promote a better fluid recirculation arrangement and prolonging the life of aquatic animals store within.

For claim 32, the references (Robohm in view of Smolski) as applied to claim 28 above as modified by Holman (emphasis on Smolski) further teach the means for delivering foam to the interior of the tank comprises: a fluid conduit (13) extending from the lower portion of the tank to the upper portion of the tank, and means for introducing a pressurized gas/air into the fluid conduit so as to generate a vacuum to suck fluid (24) from the lower portion of the tank and deliver fluid to the upper portion of the tank via the fluid conduit (see Figure 1). Furthermore, it should be noted that a recitation (i.e., "whereby the fluid can be applied as a foam over at least a majority of the aquatic animals when stored in the tank") of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Presently, the Robohm reference provides the claimed structure (i.e., a tank having a means for delivering foam to the interior of the tank), and is therefore, capable of functioning (i.e., storing aquatic animals within the tank wherein the fluid can be applied as a foam over at least a majority of the aquatic animals) as claimed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyngstad (US 2005/0076848).

For claim 35, Lyngstad discloses an apparatus for storing aquatic animals, comprising a tank (14) for receipt of a plurality of aquatic animals, and

means (50,52,68,70,72,74) for recirculating fluid from a lower region of the interior of the tank in which the aquatic animals are stored to an upper region of the interior of the tank, such that the fluid passes over at least a majority of the aquatic animals when stored in the tank and the natural proteins of the aquatic animals create a foam (it is inherently that aquatic animals such as bivalves produce/release some sort of natural proteins into the fluid in a form of foam or small bubbles) as the fluid is recirculated.

Furthermore, it should be noted that a recitation (i.e., “whereby at least a majority of the aquatic animals when stored in the tank are submerged in foam”) of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from

the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Presently, the Lyngstad reference provides the claimed structure (i.e., a tank having a means for recirculating fluid), and is therefore, capable of functioning (i.e., storing aquatic animals within the tank wherein the aquatic animals are submerged in the foam) as claimed.

For claim 36, Lyngstad teaches means (74,76) for injecting a gas/air into said recirculating means such that foam/air/bubbles is generated in said recirculating means.

For claim 37, Lyngstad teaches the gas injecting means comprises a source of pressurized gas (74, see [0040]).

For claim 38, Lyngstad teaches the gas injecting means comprises means for introducing a property-enhancing substance (salt and/or pH, see [0040]) into the foam.

8. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lyngstad (US 2005/0076848).

As described above, Lyngstad discloses most of the claimed invention except for mentioning the gas/air injecting means comprises means for pulsing the gas/air as the gas/air is injected into the circulating means whereby the foam can be applied over the aquatic animals in pulses. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Lyngstad so as to have included the gas/air injecting means comprises means for pulsing the gas/air as the gas/air is injected into the circulating means whereby the foam can be applied over the aquatic animals in pulses, since the Examiner takes Official Notice that such concept is old and well known technique used throughout the art of

transporting live aquatic animals so as to efficiently supply amount of gas/air into the tank and thus prolong the life of aquatic animals store therein.

Response to Arguments

9. Applicant's arguments filed 10/28/10 have been fully considered but they are not persuasive.

10. In response to applicant's argument that neither Robohm nor Smolski references describe an apparatus for producing foam for storing aquatic animals, it is noted that a fair reading of the claim language permits the examiner to interpret that Robohm teaches an apparatus for storing aquatic animals comprises a tank (205) having an upper portion and a lower portion and means for delivering foam (300,305,310; in this case, the oxygen bubbles are considered as equivalent to foam since *The Merriam Webster's Collegiate Dictionary, Tenth Edition* copyright © 1997 by Merriam-Webster, Incorporated defines the term "foam" as "a light frothy mass of fine bubbles formed in or on the surface of a liquid. Therefore, the oxygen bubbles or foam are formed within the liquid and that the aquatic animals living within the liquid are inherently submerged within the bubbles or foam therein.) to the interior of the tank. Furthermore, it is noted that the Smolski reference was cited to show that it is old and well known in the art to use a means (14,13) for delivering bubble/foam within a body of liquid at the upper portion (see Figure 1). Also, noted that lines 40-50 of col. 2, Smolski indicated that the means for delivering bubble/foam can be used in an artificial reservoir (in this case, a tank) or any other body of liquid which is to be treated.

11. Applicant further argues that neither Robohm's nor Smolski's apparatus could be used to form an air-rich environment to store at least a majority of animals in the tank in foam. It is noted that this is an issue that need not be considered by the examiner at this time, as a careful perusal of the claims language reveal that there is no such requirement and/or limitation (i.e., to form an air-rich environment). Thus, Applicant's arguments appear to be more specific than the claim language. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. In response to applicant's argument to the Holman reference, it is noted that the Holman reference was cited to show that it is old and well known in the art of transporting live aquatic animals to use a gas/air injecting means comprises a source of pressurized gas/air.

13. In response to applicant's remarks to the Lyngstad reference, the examiner apologizes for the error. The examiner inadvertently stated the rejection under 35 USC 102(b) instead of 102(e). Please see the correction as stated above.

14. In response to applicant's argument that Lyngstad discloses an apparatus for storing aquatic animals in water, not foam. It is noted that the oxygen bubbles created in Lyngstad are considered as equivalent to foam since *The Merriam Webster's Collegiate Dictionary, Tenth Edition* copyright © 1997 by Merriam-Webster, Incorporated defines the term "foam" as "a light frothy mass of fine bubbles formed in or on the surface of a liquid. Therefore, the oxygen bubbles or foam are formed within the liquid

and that the aquatic animals living within the liquid are inherently submerged within the bubbles or foam therein.

15. Applicant further argues that the Lyngstad apparatus does not provide a significant amount free air space at the top of the tank. It is noted that this is an issue that need not be considered by the examiner at this time, as a careful perusal of the claims language reveal that there is no such requirement and/or limitation (i.e., a significant amount free air space at the top of the tank). Thus, Applicant's arguments appear to be more specific than the claim language. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

16. In response to applicant's remarks to "any natural proteins released by the aquatic animals in a water environment will be diluted by the water, and any gas will rise to the top of the tank, so even if foam were created, it would be on the surface, out of contact with the animals, and therefore the majority of animals would not be submerged in foam", it is unclear and/or not understood how the natural proteins of the aquatic animals as claimed by the applicant will not be diluted by the water and that the foam as claimed by the applicant will not rise and be on the surface?

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh T. Nguyen whose telephone number is (571) 272-6906. The examiner can normally be reached on M-F (8:00 A.M to 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Collins can be reached on (571) 272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. T. N./
Primary Examiner, Art Unit 3644